APPENDIX E

SURVEY METHODOLOGY

SURVEY METHODOLOGY FOR DETERMINING LOW AND MODERATE INCOME POPULATION

To qualify for CDBG funds under the national objective of low and moderate-income (LMI) benefit an applicant must be able to demonstrate the income eligibility of the project beneficiaries. This can be accomplished in several ways (pre-approved list, presumed LMI group) but for most applicants a survey is required to demonstrate the income of the project recipients. All grantees must use the following survey methodology in order for the survey to meet state requirements and qualify under the benefit of low and moderate-income national objective.

1- After reading through the information below applicants **must** contact the local Associations of Government (AOG) and the Division of Housing and Community Development (HCD) to review the proposed survey instrument and methodology **before** proceeding.

2- Original surveys done by grantees may be reused in subsequent years under the following circumstances:

a. the original project beneficiaries and boundaries are identical to the new project beneficiaries and boundaries;

b. the original survey may be used for up to two **consecutive** application cycles if the original survey shows that 51-59 percent of the beneficiaries were LMI;

c. the original survey may be used for up to four **consecutive** application cycles if the original survey shows that 60 percent or more of the beneficiaries were LMI.

PREPARING TO DO A SURVEY

There are two types of surveys, community wide and site specific. The one used depends on the scope and breadth of the project: A community wide survey is for projects that directly benefit the entire community. A site-specific survey is for projects that only benefit a specific neighborhood or portion of the community. Each applicant will need to first determine the type of survey needed based on the project applied for and then contact the AOG or HCD for approval.

In a small community the construction of the only fire station or park or other improvement will require a community wide survey. If a second fire station or park is going to be built in a community it would most likely be a site-specific project. The applicant must determine logical response or commuting distances from each improvement relative to the existing facility to determine the service and survey area. The community must also take into account the services provided by the new facility. If the new fire station will house the only ladder truck or paramedic vehicle in the community then the entire community will benefit. If the new park will have the only baseball diamond complex or the only skateboard facility in the community then the entire community will need to participate in a community wide survey.

COMMUNITY WIDE SURVEYS

For a community wide survey the entire population of the community must be represented in the survey. This is for projects that will benefit the entire applicant population, i.e. the entire town, city or county. The applicant must select a statistically supportable, **randomly** selected sample that will demonstrate the percentage of low and moderate-income persons in the entire city with a plus or minus 3 percent error rate. To do this applicants must first determine the current population of the community and the average family size. Current population estimates can be obtained from the AOG, the Governor's Office of Planning and Budget, the League of Cities and Towns, The U.S. Census or HCD.

Using the 'community wide survey chart' on the following page applicants can determine how many **persons** must be surveyed. That number will be divided by the average family size to determine how many **households** will actually need to receive a survey to represent the required number of persons. The community **must submit** documentation of how the figures were developed and HCD will make a determination of adequacy on a case-by-case basis. The following example will help explain this process.

EXAMPLE: **Manti City** **Population** - 2,268 **Average Family Size** - 3.75

> **Sample Size** - In order to determine the number of individuals who must be surveyed, the applicant should find the number on the chart on the next page which is nearest to but less than the actual population. In the example community, Manti, the chart shows that the number nearest to but less than 2,268 is 2,000. Then the applicant must determine what percent of their population is greater than the corresponding number on the chart, in this case 2,000. 2,268 is 268 more than 2,000 and 268 is 54% of 500 (268 / 500 = .536 or 54%) , which is the difference between 2,000 and 2,500 on the chart. Then, take 54 percent of the difference between 714 and 769, which are the corresponding tolerated error numbers on the chart. (769 – 714 = 55) Calculate 54% of 55. (.54 x 55 = 30) Add 30 to 714 for a total of 744. For Manti City then, 744 people must complete surveys in order to get the required +or – 3 percent error. Then, in order to determine how many **families** should be surveyed, divide the sample size by the average family size. 744 people divided by 3.75 =198. 198 families must be surveyed

Based on the above calculations Manti City will need to survey 744 people. Completed survey forms from 198 families must be obtained. Experience indicates that about 80 percent of the people will respond to a door-to-door survey. In this example the city should plan on contacting approximately 245 families to get the 198 responses they need. Any surveys received in excess (over sample) of the 198 should be set aside and used only for replacement of improperly completed surveys.

The survey must be a **random** sample. For a large (100+ homes) survey the applicant should use a random number chart available from the AOG or use a number randomizer. There are several web sites that offer number randomizing; a few that may be useful are www.randomizer.org or www.random.org. For smaller samples of less than 100 homes it is acceptable to randomly write the numbers 1 through 10 in random order on a piece of paper and have someone close their eyes and point to a number or roll a pair of dice. That number would then be used to select the households to be surveyed. Applicants must document how the random number(s) was chosen.

It is recommended that the telephone book **not** be used to generate the list of households to be surveyed. A utility billing or other complete list of residents is a more accurate representation of the community. Using the random number of five for example, go through the list and contact every fifth home. If there aren't enough addresses to meet the required sample size select another random number and repeat the process above until there are a sufficient number of surveys. Remember, applicants must document and submit the methodology used for selecting your random number(s). For populations of less than 50 households there is no point in trying to randomize the survey, rather survey every household in the community.

COMMUNITY WIDE SURVEY CHART

Population Size	*Survey Sample Size
50	47
100	91
150	132
200	169
300	236
400	294
500	344
600	389
700	429
800	465
900	497
1,000	526
1,250	588
1,500	638
1,750	679
2,000	714
2,500	769
3,000	810
3,500	843
4,000	869
5,000	909
6,000	937
7,000	958
8,000	975
9,000	989
10,000	999
12,500	1,020
15,000	1,034
17,500	1,044
20,000	1,052
22,500	1,058
25,000	1,063
30,000	1,071
40,000	1,081

***Tolerated Error +/- 3.0.**

SITE-SPECIFIC SURVEYS

If the project does not benefit the entire population of the community it is considered a site-specific survey. Site-specific surveys **must be a 100 percent survey of each person in the described site.**

The applicant must carefully decide who will benefit from the project and then design the survey so that only these persons will be surveyed. In the case of a public infrastructure project (water, sewer, etc.) the applicant, in conjunction with the design engineer, should identify those homes that will receive a direct benefit from the project. Those homes benefiting from the project are generally those adjacent to the construction located directly in front of the home. The survey must only include those homes. A similar concept would apply for road construction, storm drainage and curb and gutter projects.

A detailed map of the survey area must be provided identifying each house within the site. An attempt must be made to contact each home within the site. There must be at least an 80 percent response rate to make the survey valid.* Any resident that is unwilling to respond to the survey must be included with any vacant homes. Homes found to be vacant or refusing to respond are counted as being the same proportion of LMI as the households that did respond. (Empty lots and seasonal homes are not counted unless they constitute more than 50 percent of the project area.)

Seasonal homes (recreational or vacation property) or **empty lots** (undeveloped sites) that are not occupied at the time of the survey will not be counted (included in the survey) as long as they do not constitute greater than 50 percent of the homes in the survey area. Project areas that are more than 50 percent vacant, un-occupied or undeveloped at the time of the survey will not qualify as meeting the 51 percent LMI requirement.

*For example, if (30) homes are in the project area at least (24) surveys must be completed (80% x 39). In this example up to (6) homes can be vacant or refuse to participate.

TYPICAL SURVEY INSTRUMENT
(Some AOGs prefer slightly different instrument forms)

1. How many families currently reside at this address? ______ (**If more than one family lives at this address, each family must complete a separate survey!**)

2. How many persons are there in your family?
Family members____________ (If you are single, with no dependents mark 1)

If more than 1 family resides at this address please indicate whether this survey is for :
Family #1 ______ Family Size _____
Family #2 ______ Family Size _____
(Attach multiple family surveys together)

3. What is the current, combined income of all family members living at this address (including any related, dependent persons over 62 or working, dependent children over 18)?

Less Than (Circle One) **SAMPLE FIGURES ONLY - ALWAYS USE THE CURRENT FIGURES FOUND IN APPENDIX C FOR YOUR COUNTY***

$16,750 per year
$17,350 per year
$18,000 per year
$19,850 per year
$20,450 per year
$22,300 per year
$24,800 per year
$26,800 per year
$28,750 per year
$30,750 per year
$32,750 per year
or more than $32,750

Note: *Use the 30 percent, 50 percent and 80 percent figures in the income chart in appendix C and keep the figures in one column. (As per the example survey instrument above) This way the grantee can determine the number of families who have “very low income” and “extremely low income” (poverty).

It is also a good idea to print the script that the surveyors will use as they go door-to-door or provide detailed written instructions on the survey form for the respondent to read. This documentation must be maintained and submitted to HCD.

ADDITIONAL CRITERIA THAT CAN BE SURVEYED

As applicants prepare city/county wide surveys it is suggested that they take full advantage of the survey by including questions similar to those found on the census such as national origin, race, single female head of household, etc. Also, the community may be interested in attitudes concerning community issues and other informational statistics that may be of value to community leaders.

CONDUCTING SURVEYS: TELEPHONE/MAIL-OUT/IN-PERSON

It is strongly suggested that all surveys be done in person rather than by telephone or by mail. Applicants planning to use any method other than door-to-door, in person surveys must receive **approval from HCD** prior to initiating the survey. It has been demonstrated that telephone and mailed surveys are less accurate and less successful than door-to-door surveys. It is suggested that the surveys be returned to a closed box demonstrating the anonymous nature of the survey. The person responsible for conducting the survey must certify that a standard script was read without any leading questions being asked.

The questions used in the survey cannot be "loaded" or "biased." Interviewers must not influence responses by making leading statements during the interview. No leading statements should be included in the language in the survey instrument itself that is presented to the resident. A copy of the written standard statement to be read to each participant must be **submitted to HCD** prior to conducting the survey and included along with the survey information in the application.

REQUIRED DOCUMENTATION

Applicants must be able to respond to the following concerns regarding how the survey was developed and conducted:

1. Was an appropriate survey prepared and conducted based on the type of project (site-specific or community-wide)?

2. Was the survey tabulation completed in compliance with the tabulation process shown in this Application Guide and was the tabulation sheet included with the pre-application?

3. If the survey was city or county-wide how did the applicant document the following?
   a. Population
   b. How family size was determined
   c. How the randomness of the survey was established

4. If the survey was site specific, did the applicant provide a detailed map identifying the service area and each home surveyed?

5. Did the applicant document how the survey was done (mail-out, telephone or door-to-door) and was the methodology reviewed and approved by the AOG or HCD?

6. Was the survey instrument used included with the pre-application?

TABULATING THE SURVEY RESPONSES

Once the survey is complete, the final calculation of the actual LMI beneficiaries can be completed. The following table must be prepared showing the numbers of families in each size category from (1) to the largest family in the survey (12). A sample table is included along with a blank table. The table includes the various family sizes along the top. The applicant fills in the appropriate income limits for each family size (per Appendix C) down the left margin. The numbers used should be the same as the numbers included on the survey instrument in accordance with your county data contained in Appendix C. The table shows all families who are LMI (shaded section) and all those families who have incomes above the limits. Once the numbers of families are tallied by size and income on the table, compute the number of total persons by multiplying the number of families in each column by the respective family size. Then, total all of the persons surveyed. Divide the number of low or moderate-income persons by the total of all persons surveyed to obtain the percent of low or moderate-income persons in the survey area. If the percent is at least 51percent, proceed to the next step of the application process.

Based on this hypothetical situation (see completed sample table), a calculation is made showing how to compute the percent of low or moderate-income persons in this population. Additional blank tables are available from HCD.

Survey documentation must be included with the pre-application and must include: The survey instrument, tabulation sheets and methodology. The methodology must include how, where and to whom the survey was administered. Applications that do not include all of the required survey information and the required procedures will not be accepted.

TALLY OF # OF FAMILIES

FAMILY SIZE →	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL LOW INCOME PERSONS
INCOME LESS THAN: $													
$													
$													
$													
$													
$													
$													
$													
$													
$													
$													
$													

LMI Families

Non-LMI Families

Family Size →	1	2	3	4	5	6	7	8	9	10	11	12	Totals
ROW A **TOTAL LOW INCOME <u>PERSONS</u>** (Multiply # of families by family size)													Total LMI Persons
ROW B **TOTAL NON LOW INCOME <u>PERSONS</u>** (Multiply # of families by family size)													Total Non LMI Persons
TOTAL NUMBER OF <u>PERSONS</u> Row A + Row B													Total of All Persons

LMI =

Total LMI Persons (Row A) divided by the Total Persons (Row C) = % LMI Pop	%

SAMPLE CALCUATION

TALLY OF # OF FAMILIES

FAMILY SIZE →	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL LOW INCOME PERSONS
INCOME LESS THAN: $	42												42
$	32	50											50
$		42	36										36
$			29	28									28
$				25	17								17
$					20	12							12
$						10	8						8
$							9	3					3
$								1	0				0
$									2	1			1
$										1	0		0
$											0	1	1

LMI Families

Non-LMI Families

Family Size →	1	2	3	4	5	6	7	8	9	10	11	12	Totals
ROW A **TOTAL LOW INCOME <u>PERSONS</u>** (Multiply # of families by family size)	42	100	108	112	85	72	56	24	0	10	0	12	621 Total LMI Persons
ROW B **TOTAL NON LOW INCOME <u>PERSONS</u>** (Multiply # of families by family size)	32	84	87	100	100	60	63	8	18	10	0	0	562 Total Non LMI Persons
TOTAL NUMBER OF <u>PERSONS</u> Row A + Row B	74	184	195	212	185	132	119	32	18	20	0	12	1183 Total of All Persons

LMI =	

Total LMI Persons (Row A) divided by the Total Persons (Row C) = % LMI Pop →	52.5 %